



ANALYTICAL REPORT

Lab Number:	L1312102
Client:	Environmental Health & Engineering Inc. 117 Fourth Ave Needham, MA 02494
ATTN:	Matt Fragala
Phone:	(781) 247-4300
Project Name:	Not Specified
Project Number:	18536
Report Date:	07/15/13

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Project Name: Not Specified
Project Number: 18536

Lab Number: L1312102
Report Date: 07/15/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1312102-01	146336	Not Specified	06/27/13 00:00
L1312102-02	146337	Not Specified	06/27/13 00:00
L1312102-03	146338	Not Specified	06/27/13 00:00
L1312102-04	146339	Not Specified	06/27/13 00:00
L1312102-05	146340	Not Specified	06/27/13 00:00
L1312102-06	146341	Not Specified	06/27/13 00:00
L1312102-07	146342	Not Specified	06/27/13 00:00
L1312102-08	146343	Not Specified	06/27/13 00:00
L1312102-09	146344	Not Specified	06/27/13 00:00
L1312102-10	146345	Not Specified	06/27/13 00:00
L1312102-11	146346	Not Specified	06/27/13 00:00
L1312102-12	146347	Not Specified	06/27/13 00:00
L1312102-13	146348	Not Specified	06/27/13 00:00
L1312102-14	146349	Not Specified	06/27/13 00:00
L1312102-15	146350	Not Specified	06/27/13 00:00
L1312102-16	146351	Not Specified	06/27/13 00:00
L1312102-17	146352	Not Specified	06/27/13 00:00
L1312102-18	146353	Not Specified	06/27/13 00:00
L1312102-19	146354	Not Specified	06/27/13 00:00

Project Name: Not Specified
Project Number: 18536

Lab Number: L1312102
Report Date: 07/15/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: Not Specified
Project Number: 18536

Lab Number: L1312102
Report Date: 07/15/13

Case Narrative (continued)

PCB Homologs in Air

Concentrations for compounds flagged with "G" qualifiers may be biased high due to matrix interference included in the quantitation.

The surrogate recoveries for sample L1312102-12 were outside the acceptance criteria for Cl3-BZ#19-C13 (38%) and Cl8-BZ#202-C13 (39%); however, re-extraction could not be performed due to lack of additional sample. The results of the original analysis are reported; however, all associated compounds are considered to have a potential bias.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Elizabeth Porta

Title: Technical Director/Representative

Date: 07/15/13

ORGANICS

PCBS

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-01
Client ID: 146336
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/14/13 18:28
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	20.4		ng/cart	10.0	--	1
Tetrachlorobiphenyls	28.7		ng/cart	10.0	--	1
Pentachlorobiphenyls	53.3		ng/cart	10.0	--	1
Hexachlorobiphenyls	45.8		ng/cart	10.0	--	1
Heptachlorobiphenyls	14.5		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	163		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	101		50-125
Cl8-BZ#202-C13	110		50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-02
Client ID: 146337
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/14/13 19:25
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	16.3		ng/cart	10.0	--	1
Trichlorobiphenyls	36.6		ng/cart	10.0	--	1
Tetrachlorobiphenyls	50.3		ng/cart	10.0	--	1
Pentachlorobiphenyls	80.1		ng/cart	10.0	--	1
Hexachlorobiphenyls	70.0		ng/cart	10.0	--	1
Heptachlorobiphenyls	21.7		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	275		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	103		50-125
Cl8-BZ#202-C13	111		50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-03
Client ID: 146338
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/14/13 20:21
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	39.5	G	ng/cart	10.0	--	1
Trichlorobiphenyls	76.9		ng/cart	10.0	--	1
Tetrachlorobiphenyls	80.4		ng/cart	10.0	--	1
Pentachlorobiphenyls	131		ng/cart	10.0	--	1
Hexachlorobiphenyls	114		ng/cart	10.0	--	1
Heptachlorobiphenyls	30.7		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	482	G	ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	103		50-125
Cl8-BZ#202-C13	113		50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-04
Client ID: 146339
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/12/13 00:34
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	23.5		ng/cart	10.0	--	1
Tetrachlorobiphenyls	34.1		ng/cart	10.0	--	1
Pentachlorobiphenyls	47.4		ng/cart	10.0	--	1
Hexachlorobiphenyls	39.0		ng/cart	10.0	--	1
Heptachlorobiphenyls	11.6		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	163		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	93		50-125
Cl8-BZ#202-C13	99		50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-05
Client ID: 146340
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/12/13 01:31
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	10.6		ng/cart	10.0	--	1
Trichlorobiphenyls	57.9		ng/cart	10.0	--	1
Tetrachlorobiphenyls	66.6		ng/cart	10.0	--	1
Pentachlorobiphenyls	100		ng/cart	10.0	--	1
Hexachlorobiphenyls	63.4		ng/cart	10.0	--	1
Heptachlorobiphenyls	23.5		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	328		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	91		50-125
Cl8-BZ#202-C13	98		50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-06
Client ID: 146341
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/12/13 02:27
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	14.8		ng/cart	10.0	--	1
Tetrachlorobiphenyls	28.2		ng/cart	10.0	--	1
Pentachlorobiphenyls	35.4		ng/cart	10.0	--	1
Hexachlorobiphenyls	23.2		ng/cart	10.0	--	1
Heptachlorobiphenyls	ND		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	109		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	92		50-125
Cl8-BZ#202-C13	98		50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-07
Client ID: 146342
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/12/13 03:23
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	14.3		ng/cart	10.0	--	1
Tetrachlorobiphenyls	24.7		ng/cart	10.0	--	1
Pentachlorobiphenyls	36.4		ng/cart	10.0	--	1
Hexachlorobiphenyls	24.8		ng/cart	10.0	--	1
Heptachlorobiphenyls	ND		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	108		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	89		50-125
Cl8-BZ#202-C13	95		50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-08
Client ID: 146343
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/12/13 04:19
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	24.3		ng/cart	10.0	--	1
Tetrachlorobiphenyls	31.4		ng/cart	10.0	--	1
Pentachlorobiphenyls	43.4		ng/cart	10.0	--	1
Hexachlorobiphenyls	26.5		ng/cart	10.0	--	1
Heptachlorobiphenyls	ND		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	143		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	93		50-125
Cl8-BZ#202-C13	99		50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-09
Client ID: 146344
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/12/13 06:47
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	39.9		ng/cart	10.0	--	1
Tetrachlorobiphenyls	44.2		ng/cart	10.0	--	1
Pentachlorobiphenyls	64.9		ng/cart	10.0	--	1
Hexachlorobiphenyls	34.7		ng/cart	10.0	--	1
Heptachlorobiphenyls	11.6		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	204		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	85		50-125
Cl8-BZ#202-C13	92		50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-10
Client ID: 146345
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/12/13 07:43
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	14.9		ng/cart	10.0	--	1
Trichlorobiphenyls	52.7		ng/cart	10.0	--	1
Tetrachlorobiphenyls	52.2		ng/cart	10.0	--	1
Pentachlorobiphenyls	67.5		ng/cart	10.0	--	1
Hexachlorobiphenyls	52.8		ng/cart	10.0	--	1
Heptachlorobiphenyls	15.3		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	255		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	88		50-125
Cl8-BZ#202-C13	95		50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-11
Client ID: 146346
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/12/13 08:39
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	12.5		ng/cart	10.0	--	1
Tetrachlorobiphenyls	15.7		ng/cart	10.0	--	1
Pentachlorobiphenyls	28.3		ng/cart	10.0	--	1
Hexachlorobiphenyls	15.5		ng/cart	10.0	--	1
Heptachlorobiphenyls	ND		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	77.9		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	84		50-125
Cl8-BZ#202-C13	90		50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-12
Client ID: 146347
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/12/13 09:36
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	25.3		ng/cart	10.0	--	1
Tetrachlorobiphenyls	14.8		ng/cart	10.0	--	1
Pentachlorobiphenyls	21.4		ng/cart	10.0	--	1
Hexachlorobiphenyls	19.8		ng/cart	10.0	--	1
Heptachlorobiphenyls	ND		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	97.3		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	38	Q	50-125
Cl8-BZ#202-C13	39	Q	50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-13
Client ID: 146348
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/12/13 10:32
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	11.0		ng/cart	10.0	--	1
Trichlorobiphenyls	23.8		ng/cart	10.0	--	1
Tetrachlorobiphenyls	20.8		ng/cart	10.0	--	1
Pentachlorobiphenyls	39.9		ng/cart	10.0	--	1
Hexachlorobiphenyls	37.4		ng/cart	10.0	--	1
Heptachlorobiphenyls	14.8		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	148		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	90		50-125
Cl8-BZ#202-C13	92		50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-14
Client ID: 146349
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/12/13 11:28
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	32.7		ng/cart	10.0	--	1
Tetrachlorobiphenyls	42.5		ng/cart	10.0	--	1
Pentachlorobiphenyls	50.8		ng/cart	10.0	--	1
Hexachlorobiphenyls	30.5		ng/cart	10.0	--	1
Heptachlorobiphenyls	12.2		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	178		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	98		50-125
Cl8-BZ#202-C13	103		50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-15
Client ID: 146350
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/12/13 14:00
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	24.7		ng/cart	10.0	--	1
Tetrachlorobiphenyls	31.9		ng/cart	10.0	--	1
Pentachlorobiphenyls	45.0		ng/cart	10.0	--	1
Hexachlorobiphenyls	29.4		ng/cart	10.0	--	1
Heptachlorobiphenyls	ND		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	140		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	99		50-125
Cl8-BZ#202-C13	105		50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-16
Client ID: 146351
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/12/13 14:56
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	14.4		ng/cart	10.0	--	1
Tetrachlorobiphenyls	25.3		ng/cart	10.0	--	1
Pentachlorobiphenyls	41.7		ng/cart	10.0	--	1
Hexachlorobiphenyls	23.0		ng/cart	10.0	--	1
Heptachlorobiphenyls	ND		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	107		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	98		50-125
Cl8-BZ#202-C13	106		50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-17
Client ID: 146352
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/12/13 15:52
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	ND		ng/cart	10.0	--	1
Tetrachlorobiphenyls	ND		ng/cart	10.0	--	1
Pentachlorobiphenyls	ND		ng/cart	10.0	--	1
Hexachlorobiphenyls	ND		ng/cart	10.0	--	1
Heptachlorobiphenyls	ND		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	ND		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	95		50-125
Cl8-BZ#202-C13	101		50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-18
Client ID: 146353
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/12/13 16:48
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	ND		ng/cart	10.0	--	1
Tetrachlorobiphenyls	ND		ng/cart	10.0	--	1
Pentachlorobiphenyls	ND		ng/cart	10.0	--	1
Hexachlorobiphenyls	ND		ng/cart	10.0	--	1
Heptachlorobiphenyls	ND		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	ND		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	96		50-125
Cl8-BZ#202-C13	105		50-125

Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**SAMPLE RESULTS**

Lab ID: L1312102-19
Client ID: 146354
Sample Location: Not Specified
Matrix: Air Media
Analytical Method: 105,8270D-SIM/NOAA-M
Analytical Date: 07/12/13 17:44
Analyst: CM

Date Collected: 06/27/13 00:00
Date Received: 06/28/13
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 07/02/13 15:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	ND		ng/cart	10.0	--	1
Tetrachlorobiphenyls	ND		ng/cart	10.0	--	1
Pentachlorobiphenyls	ND		ng/cart	10.0	--	1
Hexachlorobiphenyls	ND		ng/cart	10.0	--	1
Heptachlorobiphenyls	ND		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	ND		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	91		50-125
Cl8-BZ#202-C13	98		50-125

Project Name: Not Specified

Lab Number: L1312102

Project Number: 18536

Report Date: 07/15/13

Method Blank Analysis Batch Quality Control

Analytical Method: 105,8270D-SIM/NOAA-M

Extraction Method: EPA 3540C

Analytical Date: 07/11/13 19:53

Extraction Date: 07/02/13 15:42

Analyst: CM

Parameter	Result	Qualifier	Units	RL	MDL
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab for sample(s): 01-19 Batch: WG619175-1					
Monochlorobiphenyls	ND		ng/cart	10.0	--
Dichlorobiphenyls	ND		ng/cart	10.0	--
Trichlorobiphenyls	ND		ng/cart	10.0	--
Tetrachlorobiphenyls	ND		ng/cart	10.0	--
Pentachlorobiphenyls	ND		ng/cart	10.0	--
Hexachlorobiphenyls	ND		ng/cart	10.0	--
Heptachlorobiphenyls	ND		ng/cart	10.0	--
Octachlorobiphenyls	ND		ng/cart	10.0	--
Nonachlorobiphenyls	ND		ng/cart	10.0	--
Decachlorobiphenyl	ND		ng/cart	10.0	--
Total Homologs	ND		ng/cart	10.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	97		50-125
Cl8-BZ#202-C13	103		50-125

Lab Control Sample Analysis **Batch Quality Control**

Project Name: Not Specified

Project Number: 18536

Lab Number: L1312102

Report Date: 07/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab Associated sample(s): 01-19 Batch: WG619175-2								
Cl1-BZ#1	91		-		40-140	-		30
CL1-BZ#3	93		-		40-140	-		30
Cl2-BZ#4/#10	108		-		40-140	-		30
Cl2-BZ#5/#8	89		-		40-140	-		30
Cl3-BZ#19	96		-		40-140	-		30
Cl3-BZ#18	92		-		40-140	-		30
Cl2-BZ#15	83		-		40-140	-		30
Cl4-BZ#54	94		-		40-140	-		30
Cl3-BZ#29	84		-		40-140	-		30
Cl4-BZ#50	99		-		40-140	-		30
Cl3-BZ#28/#31	87		-		40-140	-		30
Cl4-BZ#45	106		-		40-140	-		30
Cl4-BZ#52	93		-		40-140	-		30
Cl4-BZ#43/#49	102		-		40-140	-		30
Cl4-Bz#47/#48	95		-		40-140	-		30
Cl5-BZ#104	93		-		40-140	-		30
Cl4-BZ#44	91		-		40-140	-		30
Cl3-BZ#37	78		-		40-140	-		30
Cl4-BZ#74	90		-		40-140	-		30
Cl6-BZ#155	100		-		40-140	-		30
Cl4-BZ#70	90		-		40-140	-		30

Lab Control Sample Analysis Batch Quality Control

Project Name: Not Specified
Project Number: 18536

Lab Number: L1312102
Report Date: 07/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab Associated sample(s): 01-19 Batch: WG619175-2								
Cl4-BZ#66	90		-		40-140	-		30
Cl5-BZ#95	84		-		40-140	-		30
Cl4-BZ#56/#60	88		-		40-140	-		30
Cl5-BZ#101/#84	100		-		40-140	-		30
Cl5-BZ#99	94		-		40-140	-		30
Cl6-BZ#154	90		-		40-140	-		30
Cl5-BZ#110	84		-		40-140	-		30
Cl4-BZ#81	91		-		40-140	-		30
Cl5-BZ#87	96		-		40-140	-		30
Cl6-BZ#151	89		-		40-140	-		30
Cl4-BZ#77	89		-		40-140	-		30
Cl5-BZ#123	90		-		40-140	-		30
Cl6-BZ#149	94		-		40-140	-		30
Cl7-BZ#188	84		-		40-140	-		30
Cl5-BZ#118	91		-		40-140	-		30
Cl6-BZ#146	86		-		40-140	-		30
Cl5-BZ#114	90		-		40-140	-		30
Cl6-BZ#153	87		-		40-140	-		30
Cl6-BZ#138/#163	78		-		40-140	-		30
Cl6-BZ#158	91		-		40-140	-		30
Cl5-BZ#105	78		-		40-140	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: Not Specified
Project Number: 18536

Lab Number: L1312102
Report Date: 07/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab Associated sample(s): 01-19 Batch: WG619175-2								
Cl7-BZ#182/#187	93		-		40-140	-		30
Cl7-BZ#183	96		-		40-140	-		30
Cl6-BZ#167/#128	90		-		40-140	-		30
Cl5-BZ#126	72		-		40-140	-		30
Cl7-BZ#174	96		-		40-140	-		30
Cl8-BZ#202	97		-		40-140	-		30
Cl7-BZ#177	91		-		40-140	-		30
Cl6-BZ#156	85		-		40-140	-		30
Cl6-BZ#157	85		-		40-140	-		30
Cl7-BZ#180	93		-		40-140	-		30
Cl7-BZ#170/#190	74		-		40-140	-		30
Cl8-BZ#201	93		-		40-140	-		30
Cl6-BZ#169	89		-		40-140	-		30
Cl9-BZ#208	100		-		40-140	-		30
Cl7-BZ#189	100		-		40-140	-		30
Cl8-BZ#195	92		-		40-140	-		30
Cl8-BZ#194	91		-		40-140	-		30
Cl8-BZ#205	93		-		40-140	-		30
Cl9-BZ#206	93		-		40-140	-		30
Cl10-BZ#209	96		-		40-140	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: Not Specified
Project Number: 18536

Lab Number: L1312102
Report Date: 07/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab Associated sample(s): 01-19 Batch: WG619175-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Cl3-BZ#19-C13	97				50-125
Cl8-BZ#202-C13	97				50-125

Project Name: Not Specified

Lab Number: L1312102

Project Number: 18536

Report Date: 07/15/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1312102-01A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-02A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-03A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-04A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-05A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-06A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-07A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-08A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-09A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-10A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-11A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-12A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-13A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-14A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-15A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-16A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-17A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-18A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1312102-19A	PUF Air Cartridge - High or Low	A	N/A	5.2	Y	Absent	A2-PCBHOMS-8270SIML(7)

*Values in parentheses indicate holding time in days

Project Name: Not Specified
Project Number: 18536

Lab Number: L1312102
Report Date: 07/15/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

Report Format: Data Usability Report



Project Name: Not Specified**Lab Number:** L1312102**Project Number:** 18536**Report Date:** 07/15/13**Data Qualifiers**

due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.**P** - The RPD between the results for the two columns exceeds the method-specified criteria.**Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)**R** - Analytical results are from sample re-analysis.**RE** - Analytical results are from sample re-extraction.**J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).**ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: Not Specified
Project Number: 18536

Lab Number: L1312102
Report Date: 07/15/13

REFERENCES

- 105 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997 in conjunction with NOAA Technical Memorandum NMFS-NWFSC-59: Extraction, Cleanup and GC/MS Analysis of Sediments and Tissues for Organic Contaminants, March 2004 and the Determination of Pesticides and PCBs in Water and Oil/Sediment by GC/MS: Method 680, EPA 01A0005295, November 1985.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

CHAIN OF CUSTODY FORM

Serial No: 071101314:21
DATE: 6/28/13

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: Alpha

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 18536

The cost of this analysis will be covered by EH&E Purchase Order # 18536

For EH & E Data Coordinator - URGENT DATA ☐

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER: Time/Date/Vol	MAF
01 146336	Air PUF	PCB Homolog Analysis	6/27/13 1351L	1380
02 146337			0L	1377
03 146338			1386	L
04 146339			1360	
05 146340			1416	
06 146341			1403	
07 146342			1380	
08 146343			1403	
09 146344			1396	
10 146345			1388	1369
11 146346			1430	
12 146347			1410	
13 146348			1443	
14 146349			1416	
15 146350			1428	
16 146351			1425	

Special instructions:

- ☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other _____
☐ Fax results 781-247-4305 ☒ Electronic transfer - datacoordinator@ehinc.com
☐ RETURN SAMPLES ☒ Additional report recipient mfraga@ehinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: [Signature] of Environmental Health & Engineering, Inc. Date: 6/28/13

Received by: [Signature] of (company name) EH&E Date: 6/28/13

Relinquished by: [Signature] of (company name) EH&E Date: 6/28/13

Received by: [Signature] of (company name) Alpha Date: 6/28/13 13:25

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data

Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page 1 of 2

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: Alpha

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Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 18536

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For EH & E Data Coordinator - URGENT DATA ☐

[illegible]

Special instructions:

- ☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other _____
☐ Fax results 781-247-4305
☐ **RETURN SAMPLES** ☒ Electronic transfer - datacoordinator@eheinc.com
☒ Additional report recipient mtregala@eheinc.com

Each signatory please return ~~one~~ copy of this form to the above address

Relinquished by: [Signature] of Environmental Health & Engineering, Inc. Date: 6/28/13

Received by: Stachonard of (company name) EHFE Date: 6/28/13

Relinquished by: Shaojun of (company name) ET&E Date: 6/28/13

Received by: Kendall J of (company name) Alpha Date: 6/28/13

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Received by: _____ of Environmental Health & Engineering, Inc. Date: _____
Page 2 of 2